

Motorola[®] HOME Radio

SERVICE MANUAL

MODELS
8FM21
8FM21B
CHASSIS
HS-247

GENERAL INFORMATION

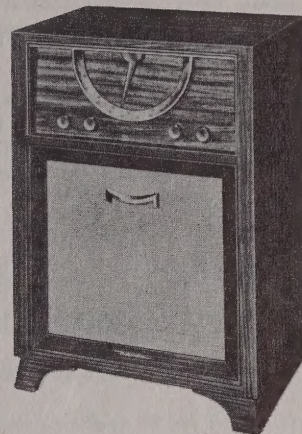
TYPE - FM-AM Radio Phonograph Combination

RECEIVER MODELS -	Model	Color
	8FM21	Red-brown mahogany
	8FM21B	Blonde

TUNING RANGE - AM 535 to 1620 Kc AM IF - 455 Kc
FM 88 to 108 Mc FM IF - 10.7 Mc

TUBE COMPLEMENT - 6BA6 - FM-AM RF Amplifier
6BA7 - FM-AM Converter
6BA6 - FM-AM IF Amplifier
6BA6 - FM IF Amplifier
6AL5 - FM Ratio Detector
6AV6 - AM Det & 1st Audio Amp
6K6GT - Power Amplifier
5Y3GT - Rectifier

POWER SUPPLY - 117 volts, 60 cycles AC only; 85 watts,
including phono motor



PHONOGRAPH - Model RC-37, three-speed: 33, 45 & 78 RPM. Refer to the RC-37 Service Manual for record changer service information.

INSTALLATION & OPERATING INSTRUCTIONS

ANTENNAS

No outside antenna or ground is normally required for standard broadcast (AM) reception, as a loop antenna is located inside the cabinet. Antenna connections are shown in Figure 1. In locations where additional pick-up is desired, an external antenna may be connected to the clip marked "EXT BC ANT" on the loop antenna.

An FM antenna, built into the power cord, eliminates the need for an external FM antenna when the receiver is used in normal FM service areas, such as are found in and for a few miles around metropolitan areas. In "fringe" or weak signal areas, improved FM reception can be obtained by using an outside FM antenna. The external antenna should be connected through a 300 ohm twin transmission line to the 1st and 2nd screws on the terminal strip on the chassis, as in Figure 1. The link between the 2nd and 3rd screws should be opened. Orient the antenna to obtain maximum volume of the FM stations.

For best FM reception from the built-in power line cord antenna, it is important to stretch the cord to its full length. Changing the direction or position of the line cord, or reversing the plug in the wall outlet, will often improve reception from weak stations. Connect the link between the 2nd and 3rd screws on the terminal strip on the chassis when the built-in antenna is used.

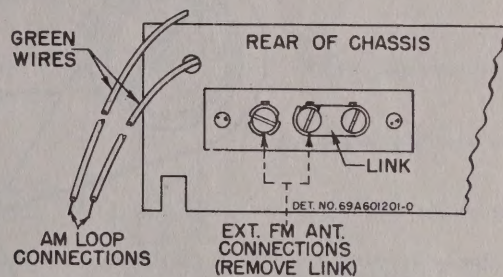


FIGURE 1. ANTENNA CONNECTIONS

CONTROLS

Refer to Figure 2 for the locations of the radio operating controls.

Power for both the radio and the record changer is controlled by the VOL-ON-OFF knob.

The phonograph motor will not operate, however, until the PHONO-TONE-RADIO knob is rotated also to "PHONO".

Tuning of FM stations should be done very carefully, for best sound reproduction, not necessarily for the strongest volume received.

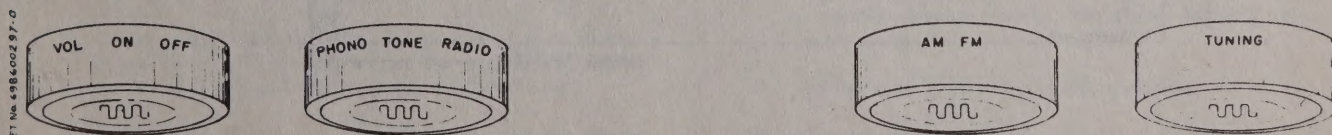


FIGURE 2. OPERATING CONTROLS

4545 AUGUSTA BOULEVARD

Motorola Inc.

CHICAGO 51, ILLINOIS

SERVICENOTES

TO REMOVE CHASSIS FROM CABINET:

1. Remove the screws from the cabinet back.
2. Disconnect the phono power lead, the phono pick-up lead, the speaker leads, the line cord, and the antenna loop leads.
3. Remove the pointer escutcheon by pulling it downward.
4. Turn the tuning knob counterclockwise until the pointer reaches the extreme low frequency end of the dial scale.
5. From the back of the cabinet, loosen the pointer adjustment setscrew (see Figure 3) and pull the pointer and shaft assembly from the chassis. **CAUTION: Do not remove the nut from the front of the pointer, as the detent ball and spring will fall out, and may become lost.**
6. Pull off the control knobs.
7. Remove the three chassis mounting screws, from

beneath the chassis.

8. Slide the chassis from the cabinet.

TO CALIBRATE DIAL:

1. Turn the tuning knob counterclockwise until the end of its travel is reached.
2. From the back of the cabinet, loosen the pointer adjustment setscrew (see Figure 3). **CAUTION: Do not remove the nut from the front of the pointer.**
3. Move the pointer until it is in a horizontal position (at the low frequency end of the dial scale).
4. Tighten the adjustment setscrew.

NOTE: If the pointer is moved by hand accidentally, it will be released from a detent in the pointer collar, and no damage to the tuning mechanism will result. To reset the pointer, move it back and forth until it again engages in the detent.

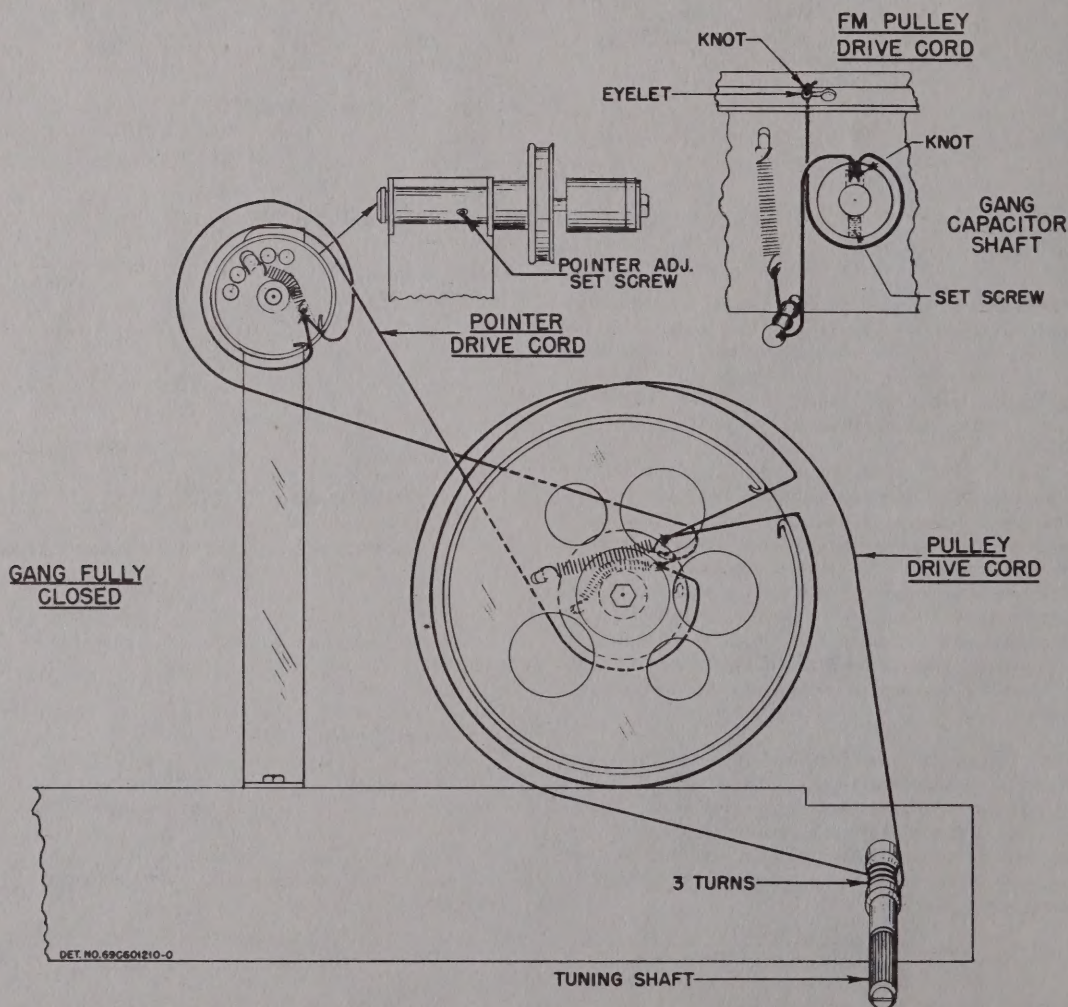


FIGURE 3. POINTER AND DRIVE CORD RESTRINGING DETAIL

ALIGNMENT

GENERAL INFORMATION

1. Maximum performance can be obtained only if extreme care is exercised during alignment.
2. Use a small fibre screwdriver for aligning the IF transformers.
3. Refer to Figure 4 for the location of all alignment trimmers and cores.
4. As the stages are brought into alignment, reduce the signal generator output to a low value to avoid overloading the receiver.

ORDER OF ALIGNMENT AND EQUIPMENT REQUIRED

1. AM Broadcast Band IF & RF Alignment
 - a. 455 to 1620 Kc AM signal generator
 - b. Low range output meter.
- 2(A) FM Band IF & RF Alignment (preferred method)
 - a. 10.7 to 108 Mc FM signal generator
 - b. Oscilloscope
- (B) FM Band IF & RF Alignment (alternate method)
 - a. 10.7 to 108 Mc signal generator (unmodulated)
 - b. Low range DC electronic voltmeter

AM BROADCAST BAND - IF & RF ALIGNMENT

1. Connect the AM signal generator as in chart below, with 400 cycle, 30% modulation.
2. Connect the output meter across the speaker voice coil. Throughout alignment, reduce the generator output to a level which produces less than 1.27 volts (.5 watt) across the voice coil to avoid overloading the receiver.
3. Set the bandswitch to the AM position.
4. Turn the receiver volume control to maximum.
5. Proceed as shown in the following chart.

STEP	DUMMY ANTENNA	GENERATOR CONNECTION	GENERATOR FREQUENCY	GANG SETTING	ADJUST	REMARKS
IF ALIGNMENT						
1.	.1 mf	Grid of conv. V-2 (pin 7, 6BA7)	455 Kc	Fully opened	1, 2, 3 & 4 (IF cores)	Adjust for maximum.
RF ALIGNMENT						
2.	.1 mf	Grid of conv. V-2 (pin 7, 6BA7)	1620 Kc	Fully opened	5 (AM Osc)	Adjust for maximum. *
3.	-	-	-	-	-	Connect AM loop to chassis.
4.	-	Across radiation loop**	1400 Kc	Tune in signal	8 (AM Ant)	Adjust for maximum.

5. If, after the receiver has been aligned as above, it is found to be badly off calibration, it will be necessary to adjust oscillator core (7) as follows: connect the generator to the grid of the converter tube and, with the gang fully closed, adjust core (7) at 535 kc. It is advisable to repeat the oscillator adjustments at 1620 kc and 535 kc several times until the tuning range is correct. Core (7) has been pre-set at the factory and normally should require no retuning.

* If difficulty is encountered in tuning trimmer (5), adjust trimmer (6) to 1/2 turn from tight.

** Connect generator output across 5" diameter, 5 turn loop and couple inductively to receiver loop. Keep loops at least 12" apart.

FM BAND - IF & RF ALIGNMENT (PREFERRED METHOD)

1. The following FM alignment procedure, using an FM signal generator and an oscilloscope, is to be preferred because the actual response pattern may be observed on the scope and adjusted for best symmetry and maximum amplitude.
2. Connect the vertical input terminals of the oscilloscope between the chassis and the junction of resistor R-18 (47K) and capacitor C-23 (1000 mmf).
3. Connect the FM signal generator sync voltage output terminals, through a phase shifting network, to the horizontal input terminals of the scope, as in Figure 5. (Other values of resistance and capacitance may be required, depending upon the scope). The phasing control should be adjusted to give only one trace on the scope. NOTE: If the FM generator has a built-in phase control, the phase shifting network is not necessary.
4. Set the bandswitch to the FM position.
5. Throughout alignment, reduce the generator output to keep the signal just above the noise level, to avoid

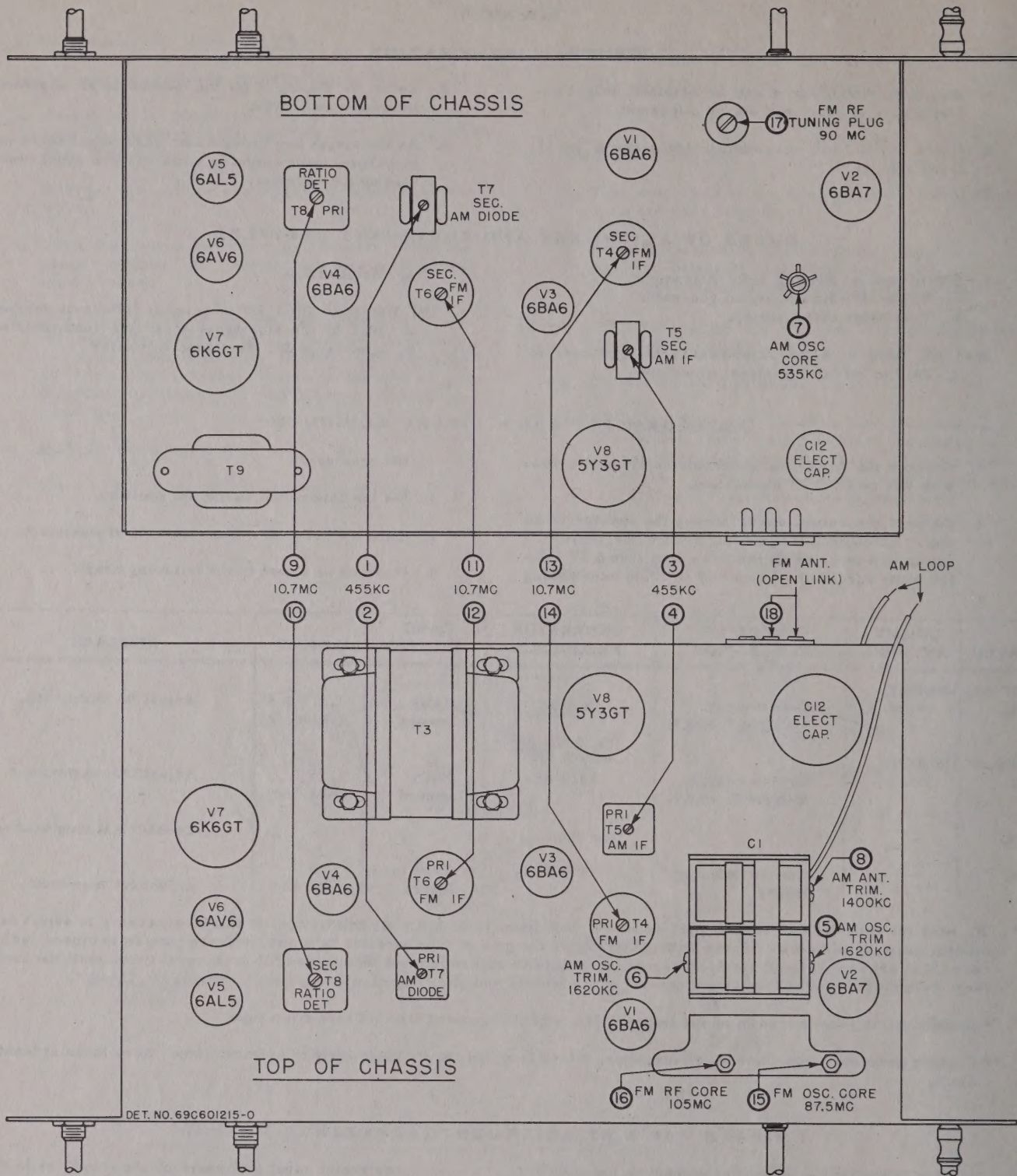


FIGURE 4. TUBE AND TRIMMER LOCATIONS

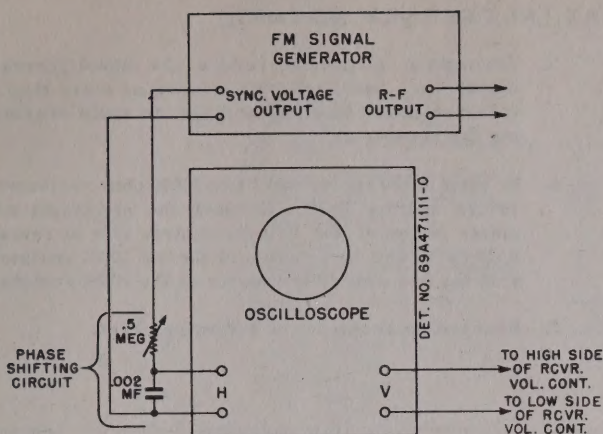


FIGURE 5.
FM SIGNAL GENERATOR & OSCILLOSCOPE HOOK-UP

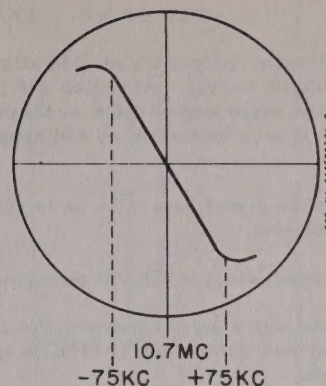


FIGURE 6. RATIO DETECTOR WAVEFORM

overloading the receiver.

6. Proceed as shown in the following chart.

STEP	DUMMY ANTENNA	GENERATOR CONNECTION	GENERATOR FREQUENCY	TUNER SETTING	ADJUST	REMARKS
IF ALIGNMENT						
1.	1000 mmf	Grid of 2nd IF Amp V-4 (pin 1, 6BA6)	10.7 mc ± 100 kc dev	Fully opened	9 (ratio det pri)	Adjust for maximum amplitude of pattern.*
2.	1000 mmf	Grid of 2nd IF Amp V-4 (pin 1, 6BA6)	10.7 mc ± 100 kc dev	Fully opened	10 (ratio det sec)	Adjust for symmetrical curve, as shown in Figure 6.
3.	-	-	-	-	-	Repeat steps 1 & 2 for maximum amplitude and best symmetry.
4.	1000 mmf	Grid of 1st IF Amp V-3 (pin 1, 6BA6)	10.7 mc ± 100 kc dev	Fully opened	11 & 12 (2nd IF sec & pri)	Adjust for maximum amplitude of pattern.*
5.	1000 mmf	Grid of conv. V-2 (pin 7, 6BA7)	10.7 mc ± 100 kc dev	Fully opened	13 & 14 (1st IF sec & pri)	Adjust for maximum amplitude of pattern.*
6.	1000 mmf	Grid of conv. V-2 (pin 7, 6BA7)	10.7 mc ± 100 kc dev	Fully opened	11, 12, 13 & 14	Readjust for maximum amplitude and best symmetry.
RF ALIGNMENT						
7.	270 ohms	FM terminal 18 on rear of chassis (open link)	87.5 mc $\pm 22\text{-}1/2$ kc dev	Fully closed	15 (osc core)	Adjust for maximum amplitude of pattern.*
8.	-	-	-	Fully closed	16 (RF core)	Turn counterclockwise until core is at bottom of pipe, then turn four turns clockwise.
9.	270 ohms	FM terminal 18 on rear of chassis	90 mc $\pm 22\text{-}1/2$ kc dev	Tune in signal	17 (RF tuning plug)	Adjust for maximum amplitude of pattern.*
10.	270 ohms	FM terminal 18 on rear of chassis	105 mc $\pm 22\text{-}1/2$ kc dev	Tune in signal	16 (RF core)	Adjust for maximum amplitude of pattern.*
11.	-	-	-	-	-	Repeat steps 9 & 10, until no further adjustment is necessary.

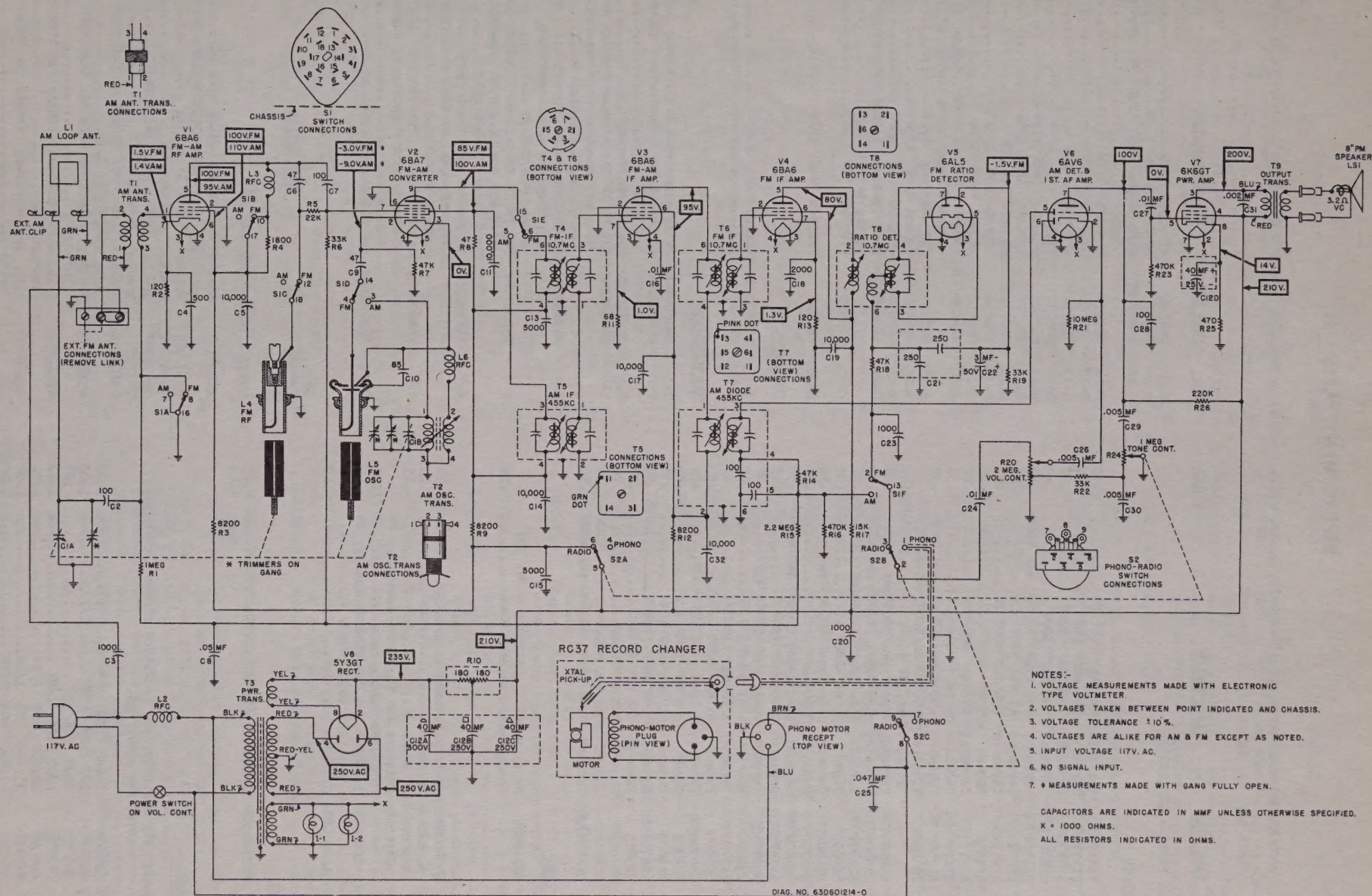
* An output meter across the speaker voice coil will also indicate maximum amplitude. It should not be used in place of the scope, however, since it will not show symmetry of the curve.

FM BAND - IF & RF ALIGNMENT (ALTERNATE METHOD)

1. The following procedure for FM alignment, with an unmodulated carrier generator and a DC electronic voltmeter, is not as desirable as the preceding method; but it may be used if no FM generator is available.
2. Connect the signal generator as in chart below, with no modulation.
3. Set the bandswitch to the FM position.
4. Except in step 2 below, connect the electronic voltmeter across resistor R-19 (33K) in the ratio detector stage.
5. Throughout alignment reduce the signal generator output to a value which produces no more than a 5 volt rise above no signal voltage, to avoid overloading the receiver.
6. In step 2 below, connect two 100K ohm resistors in series across R-19. Connect the electronic voltmeter between the volume control side of resistor R-18 (47K) and the junction of the two 100K resistors, with the low side of the meter at the 100K resistors.
7. Proceed as shown in the following chart.

STEP	DUMMY ANTENNA	GENERATOR CONNECTION	GENERATOR FREQUENCY	TUNER SETTING	ADJUST	REMARKS
IF ALIGNMENT						
1.	1000 mmf	Grid of conv. V-2 (pin 7, 6BA7)	10.7 mc	Fully opened	9, 11, 12, 13 & 14 (IF cores)	Adjust for maximum.
2.	1000 mmf	Grid of conv. V-2 (pin 7, 6BA7)	10.7 mc	Fully opened	10 (ratio det sec)	Adjust for zero (connect meter as in step 6 above.)
RF ALIGNMENT						
3.	270 ohms	FM terminal 18 on rear of chassis (open link)	87.5 mc	Fully closed	15 (osc core)	Adjust for maximum.
4.	-	-	-	Fully closed	16 (RF core)	Turn counterclockwise until core is at bottom of pipe, then turn four turns clockwise.
5.	270 ohms	FM terminal 18 on rear of chassis	90 mc	Tune in signal	17 (RF tuning plug)	Adjust for maximum.
6.	270 ohms	FM terminal 18 on rear of chassis	105 mc	Tune in signal	16 (RF core)	Adjust for maximum.
7.	-	-	-	-	-	Repeat steps 5 & 6 until no further adjustment is necessary.

FIGURE 7. SCHEMATIC DIAGRAM



- NOTES:-
1. VOLTAGE MEASUREMENTS MADE WITH ELECTRONIC TYPE VOLTMETER.
 2. VOLTAGES TAKEN BETWEEN POINT INDICATED AND CHASSIS.
 3. VOLTAGE TOLERANCE $\pm 10\%$.
 4. VOLTAGES ARE ALIKE FOR AM & FM EXCEPT AS NOTED.
 5. INPUT VOLTAGE 117V. AC.
 6. NO SIGNAL INPUT.
 7. * MEASUREMENTS MADE WITH GANG FULLY OPEN.
- CAPACITORS ARE INDICATED IN MMF UNLESS OTHERWISE SPECIFIED.
 K = 1000 OHMS.
 ALL RESISTORS INDICATED IN OHMS.

REPLACEMENT PARTS LIST

NOTE: When ordering parts, specify model number of set in addition to part number and description of part.

Ref. No.	Part No.	Description	List Price
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CHASSIS PARTS - ELECTRICAL

Capacitors

C-1	19B691877	Variable, 2-gang	3.00
C-2	21B77286	Ceramic: 100 mmf 500V20
C-3	21K478410	Ceramic: 1000 mmf 500V .....	.25
C-4	21K481377	Ceramic: 500 mmf 500V .....	.20
C-5	21K482726	Ceramic, disc type: 10,000 mmf 450V .....	.30
C-6	21K77373	Ceramic: 47 mmf 500V .....	.20
C-7	21B77286	Ceramic: 100 mmf 500V .....	.20
C-8	8R9816	Paper: .05 mf 400V .....	.20
C-9	21K77373	Ceramic: 47 mmf 500V .....	.20
C-10	21A690688	Ceramic: 85 mmf 500V .....	.30
C-11	21K482726	Ceramic, disc type: 10,000 mmf 450V .....	.30
C-12	23B690975	Electrolytic: 40 mf/300V, 40-40 mf/ 250V, 40 mf/25V	2.45
C-13	21A470789	Ceramic, disc type: 5000 mmf 450V .....	.30
C-14	21K482726	Ceramic, disc type: 10,000 mmf 450V .....	.30
C-15	21A470789	Ceramic, disc type: 5000 mmf 450V .....	.30
C-16	8R9809	Paper: .01 mf 400V .....	.20
C-17	21K482726	Ceramic, disc type: 10,000 mmf 450V .....	.30
C-18	21K790912	Ceramic: 2000 mmf 500V .....	.20
C-19	21K482726	Ceramic, disc type: 10,000 mmf 450V .....	.30
C-20	21K478410	Ceramic: 1000 mmf 500V .....	.25
C-21	21B484337	Ceramic: dual; 250-250 mmf/450V .....	.30
C-22	23K690543	Electrolytic: 3 mf 50V .....	.65
C-23	21K478410	Ceramic: 1000 mmf 500V .....	.25
C-24	8R9809	Paper: .01 mf 400V .....	.30
C-25	8R490232	Tubular, molded: .047 mf 400V .....	.25
C-26	8R9813	Paper: .005 mf 600V .....	.20
C-27	8R9809	Paper: .01 mf 400V .....	.30
C-28	21B77286	Ceramic: 100 mmf 500V .....	.20
C-29	8R9813	Paper: .005 mf 600V .....	.20
C-30	8R9813	Paper: .005 mf 600V .....	.20
C-31	8R9847	Paper: .002 mmf 600V .....	.20
C-32	21K482726	Ceramic, disc type: 10,000 mmf 450V .....	.30

Pilot Light

I-1,2	65X10867	Bulb, pilot light: #44; 6-8V; .25 amp; clear; bayonet base15
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Coils

L-1	24C690896	AM Loop Antenna	1.20
L-2	24A692148	RF Choke20
L-3	24A90064	RF Choke15
L-4	24C690584	Inductor and Capacitor Assembly: FM RF; less tuning core	1.35
L-5	24K600519	Inductor and Capacitor Assembly: FM osc; less tuning core	1.50
L-6	24A791081	RF Choke .....	.20

Speaker

LS-1	50C601038	Speaker: 8" FM; 3.2 ohm VC	7.25
		exch	5.45

Resistors

Note: All resistors are insulated carbon type unless otherwise specified.

R-1	6R6004	1 meg 20% 1/2W	1.00
R-2	6R5551	120 10% 1/2W	1.00
R-3	6R5725	8200 10% 2W .....	.20
R-4	6R2089	1800 10% 1/2W	1.00
R-5	6R6028	22,000 20% 1/2W	1.00
R-6	6R6410	33,000 10% 1/2W	1.00
R-7	6R6056	47,000 20% 1/2W	1.00

Ref. No.	Part No.	Description	List Price
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R-8	6R2108	47 20% 1/2W	1.00
R-9	6R5725	8200 10% 2W20
R-10	17A690973	Wire wound: 360 10% 3W; center- tapped55
R-11	6R2039	68 10% 1/2W	1.00
R-12	6R5725	8200 10% 2W .....	.20
R-13	6R5551	120 10% 1/2W	1.00
R-14	6R6056	47,000 20% 1/2W	1.00
R-15	6R3927	2.2 meg 20% 1/2W	1.00
R-16	6R6377	470,000 10% 1/2W	1.00
R-17	6R5732	15,000 10% 2W .....	.20
R-18	6R6056	47,000 20% 1/2W	1.00
R-19	6R6410	33,000 10% 1/2W	1.00
R-20	18A600974	Volume control: 2 meg; tapped at 600,000 ohms; includes on-off sw..	1.50
R-21	6R2109	10 meg 20% 1/2W	1.00
R-22	6R6410	33,000 10% 1/2W	1.00
R-23	6R6032	470,000 20% 1/2W	1.00
R-24	18B600683	Tone control: 1 meg; with phono- radio switch	1.50
R-25	6R5593	470 10% 1W .....	.15
		doz	1.45
R-26	6R6015	220,000 20% 1/2W	1.00

Switches

S-1	40B690538	Bandswitch, AM-FM	1.15
S-2	-	Phono-radio switch (on tone control)	-

Transformers

T-1	24A690544	FM Antenna Input Transformer .....	.50
T-2	24K691878	AM Oscillator Transformer: white & red dot .....	.50
T-3	25B600684	Power Transformer	5.90
T-4	24B690540	1st FM IF Transformer (orange dot): 10.7 mc; complete with capacitors and cores; less shield	1.60
T-5	24B485553	AM IF Transformer (green dot): 455 kc; complete with capacitors, cores, and shield .....	.95
T-6	24B690541	2nd FM IF Transformer (yellow dot): 10.7 mc; complete with capacitors and cores; less shield	1.60
T-7	24K485555	AM Diode Transformer (pink dot): 455 kc; complete with capacitors, cores, and shield	1.20
T-8	24K600893	Ratio Detector Transformer: 10.7 mc; complete with capacitors, cores and shield	2.00
T-9	25B600969	Audio Output Transformer	1.45

Part Number	Description	List Price
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CHASSIS PARTS - MECHANICAL

1X690717	Bracket Assembly, tuning core mtg: includes shoulder rivet and anti-backlash clip...	.30
7A600965	Bracket, pilot light mtg .....	.10
7B600801	Bracket, pointer mtg .....	.20
7C690567	Bracket, tuner mtg (gang mtg) .....	.35
7ATT337	Bracket, tuning shaft .....	.05
43A890397	Bushing, line cord strain relief (use with 43K890398) .....	.05
43K890398	Bushing, line cord retainer (use with 43A890397) .....	.05
42K690561	Clip, anti-backlash: single (on core mtg bracket) .....	.05
42A690560	Clip, anti-backlash: double (on tuner mtg brkt) .....	.05

Part Number	Description	List Price	Part Number	Description	List Price
42A485548	Clip, coil can mtg (AM IF transformer)doz	.20	555405	Terminal, pin (on speaker leads).....	.05
42B482867	Clip, spring: blued finish (holds FM IF transformer) .....doz	.25	4A70015	Washer, "C" (tuning shaft mtg).....per/c	.50
11M8944	Cord, dial (pointer drive) .....yd	.10	4A21941	Washer, "C" (holds pointer mtg shaft & pulley) .....per/c	.50
11M488137	Cord, dial (core drive) .....yd	.10	4A600676	Washer, dog (AM-FM switch mtg).....doz	.40
30K21859	Cord, line: with plug; 9 ft long .....doz	1.00	4S7582	Washer, flat: 1/2 x .195 x .033 stl; cad pl (pointer drive pulley mtg).....per/c	.50
46B692164	Core, iron and screw: green dot (FM osc tuning core) .....doz	.40			
46K692165	Core, iron and screw (FM RF tuning core)..	.40			
15A600877	Cover, volume control: with insulator....	.10		MODEL 8FM21 CABINET PARTS	
587866	Eyelet: .125 x .091 brass; nkl pl (core drive cord retainer) .....per/c	.50	43A4326	Ball, steel: 1/8" diameter (pointer detent) .....doz	.15
1X600495	Lead and Plug Assembly, phono pick-up....	.65	38K691915	Button, plug (on record changer).....doz	.30
4S9751	Lockwasher, int-ext: #8; cad pl (pointer drive pulley mtg) .....per/c	.50	16F600649	Cabinet, console: red-brown mahogany; complete less pointer escutcheon and dial scale .....doz	-
287019	Nut, hex: 4-40 x 1/4; cad pl (FM tuning core mtg) .....per/c	.50	13K600651	Cloth, grille: 17-1/2" x 18-1/4"; mahogany	2.50
287051	Nut, hex palnut: 3/8-32 x 9/16; cad pl (control mtg) .....doz	.15	15C600874	Cover, cabinet back .....doz	1.40
35K691846	Pad, rubber: 1-hole (gang mtg).....doz	.15	34D600819	Dial scale .....doz	4.20
35A691845	Pad, rubber: 2-hole (gang mtg) .....doz	.25	34K600817	Escutcheon, pointer .....doz	.25
28K71775	Plug, phono pick-up .....doz	.10	587870	Eyelet: brass (on RC drawer panel-holds extra spindle) .....doz	.15
1X600828	Pulley Assembly, pointer & gang drive (includes 3-1/2" & 1-1/4" pulleys).....	.35	5A71081	Eyelet, chassis mtg: plain; 9/32" long.doz	.15
49A690562	Pulley, core drive: brass .....doz	.15	5A600963	Eyelet, chassis mtg: pierced; 1/8" long .....doz	.15
9A600040	Receptacle, phono motor: 3-prong; includes shell .....doz	.15	5A71092	Grommet, chassis mtg: rubber .....doz	.50
588497	Rivet: .088 x 1/8 stl; nkl pl (anti-backlash clip mtg) .....per/c	.50	36K601052	Knob, control (Vol-On-Off): walnut-mahog.	.45
587771	Rivet: .088 x 3/16 stl; nkl pl (min socket mtg) .....per/c	.50	36K601056	Knob, control (Phono-Tone-Radio): walnut-mahogany .....doz	.45
587774	Rivet: .088 x 1/4 stl; nkl pl (noval socket mtg) .....per/c	.50	36K601057	Knob, control (AM-FM): walnut-mahogany...	.45
587707	Rivet: .122 x 5/32 stl; nkl pl (term strip mtg) .....per/c	.50	36K601055	Knob, control (Tuning): walnut-mahogany..	.45
587701	Rivet: .122 x 3/16 stl; nkl pl (ant term strip mtg) .....per/c	.50	4S7657	Lockwasher, ext: #8; cad pl (spkr mtg) .....per/c	.50
587700	Rivet: .122 x 1/4 stl; nkl pl (octal socket mtg) .....per/c	.50	287005	Nut, hex: 6-32 x 1/4 stl; cad pl (pointer mtg) .....per/c	.50
5K13896	Rivet, shoulder (on core mtg brkt).....doz	.15	287003	Nut, hex: 8-32 x 5/16; cad pl (spkr mtg) .....per/c	.50
387163	Screw, machine: 8-32 x 1/4 plain hex head; cad pl (pointer drive pulley mtg).....per/c	.50	62K70581	Overlay, logotype: "Motorola"; gold lacquer finish .....doz	.40
387205	Screw, machine: 8-32 x 1/4 slotted locking hex head; cad pl (gang mtg) .....doz	.15	1X600851	Pointer and Collar Assembly (less shaft and sleeve) .....doz	.45
382695	Screw, sheet metal: #6 x 3/16 PKZ plain hex head; cad pl (tuner brkt mtg).....per/c	.50	55K600653	Pull, record changer drawer: satin brass.	.95
387454	Screw, sheet metal: #8 x 1/4 PKZ plain hex head; cad pl (pwr trans & pointer brkt mtg) .....per/c	.50	3K600655	Screw, machine: 8-32 x 1/2 cross slot head; statuary bronze finish (RC drawer pull mtg) .....doz	.20
387103	Setscrew: 8-32 x 1/8 Allen head; cad pl (core drive pulley & pointer mtg).....	.10	387536	Screw, sheet metal: #6 x 3/8 PKA slotted acorn head; antique copper finish (back cover mtg) .....per/c	.50
1K601085	Shaft and Pulley Assembly, pointer mtg...	.30	3K653	Screw, speaker mtg: 8-32 x 1-1/4"; copper oxide finish .....doz	.20
1X600489	Shaft, tuning: complete with pulley.....	.20	1A690738	Shaft and Sleeve Assembly, pointer: less detent spring and ball, and pointer.....	.20
15A690616	Shell, receptacle (on phono motor receptacle) .....doz	.05	55K600654	Slide, record changer (on sides of RC drawer) .....doz	1.25
26K485936	Shield, coil (for FM IF transformers)....	.20	28400199	Speednut: for .050 stud (dial scale mtg) .....doz	.15
9K600968	Socket, pilot light .....doz	.25	41A690732	Spring, compression (pointer detent)..doz	.15
9K484167	Socket, tube: miniature; 7-prong.....doz	.20	4S1765	Washer, flat: 1/2 x .147 x .015 stl; cad pl (pointer mtg) .....per/c	.50
9A485495	Socket, tube: noval; 9-prong .....doz	.25	4S7629	Washer, flat: 1/2 x 3/16 x .048 stl; cad pl (spkr mtg) .....per/c	.50
9A76209	Socket, tube: octal .....doz	.15	4A690729	Washer, spring (pointer mtg) .....per/c	.50
41A690598	Spring, coil: 7 turns; cosmoline dipped (FM RF core mtg) .....doz	.15			
41K691840	Spring, coil: 8 turns; cop pl (FM osc core mtg) .....doz	.20		MODEL 8FM21B CABINET PARTS -Same as 8FM21 except:	
41A14244	Spring, tension (core & pointer drive cord) .....doz	.55	16K600650	Cabinet, console: blonde; complete, less pointer escutcheon and dial scale.....	-
31K37504	Strip, terminal: 1 insulated lug; #1 mtg; 3/8" spacing .....doz	.05	13K600652	Cloth, grille: 17-1/2" x 18-1/4"; eggshell	2.50
31K76184	Strip, terminal: 2 insulated lugs; #1 gnd; 3/8" spacing .....doz	.05	36K601058	Knob, control (Vol-On-Off): tan .....doz	.45
31K26235	Strip, terminal: 3 insulated lugs; #1 gnd; 3/8" spacing .....doz	.05	36K601063	Knob, control (Phono-Tone-Radio): tan....	.45
31K26658	Strip, terminal: 5 insulated lugs; #3 gnd; 3/8" spacing .....doz	.10	36K601064	Knob, control (AM-FM): tan .....doz	.45
31A470403	Strip, terminal: 3-screw (antenna input)..	.20	36K601062	Knob, control (Tuning): tan .....doz	.45
			3K600656	Screw, machine: 8-32 x 1/2 cross slot head; brass (RC drawer pull mtg).....doz	.20

PRICES SUBJECT TO CHANGE WITHOUT NOTICE

